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EXAMINER

KADING, JOSHUA A

ART UNIT	PAPER NUMBER
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2661

3

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,345

Applicant(s)

CHOI, MYUNG SOON

Examiner

Joshua Kading

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on the applications filed in The Republic of Korea on 27 December 1999 and 20 October 2000.

- 5 It is noted, however, that applicant has not filed a certified copy of the 62613/1999 and 61859/2000 applications as required by 35 U.S.C. 119(b).

Specification

The disclosure is objected to because of the following informalities:

- 10 Page 4, line 16 is the first instance of the acronym "CPS". To clarify what this stands, the following should be inserted after the acronym: --(Common Part Sublayer).
Appropriate correction is required.

Claim Objections

- 15 Claim 10 is objected to because of the following informalities:

Claim 10, line 5 states, "the CID". There is no antecedent basis for this, and it should be changed to --a CID--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

20 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites the limitation "a second CAM" in line 3. There is insufficient
5 antecedent basis for this limitation in the claim. Claiming a "second CAM" suggests there is a first CAM. There is no antecedent basis for a first CAM in claim 21.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
10 obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
15

Claims 1, 5-12, and 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA) in view of Östman et al. (U.S. Patent 6,483,838 B1).

20

Regarding claim 1, AAPA discloses "an ATM cell transmitting device of an ATM switching system comprising:

a time slot input unit for switching a plurality of time slots (figure 1, element 1);

a packet processing unit for forming a...packet by using the switched time slot

25 data and (figure 1, element 2; specification, page 1, lines 15-17);

a CAM for receiving header information of the...packet and outputting an ATM buffer number (figure 1, element 8 where VPI/VC1 are header information);

an ATM cell transmitting unit for storing the...packet data outputted from the packet processing unit according to the ATM buffer number outputted from the CAM, to

5 form an ATM cell (figure 1, element 9); and

a controlling unit for performing a general controlling operation (figure 1, element 5)."

AAPA lacks the packet is a "CPS" or Common Part Sublayer packet. However, Östman discloses the packet is a "CPS" packet (figure 2 and figure 3 where figure 3
10 shows CPS packets being assembled into an ATM packet).

It would have been obvious to one with ordinary skill in the art at the time of invention to include the CPS packet with the rest of the ATM device for the purpose of multiplexing a plurality of users into one ATM channel (Östman, col. 2, lines 35-44). The motivation being that by multiplexing a plurality of users the overall throughput of the
15 network is increased.

Regarding claim 5, AAPA and Östman disclose the device of claim 1. AAPA lacks "the header information of the CPS packet refers to a time slot number and a channel identifier (CID)." However, Östman further discloses "the header information of
20 the CPS packet refers to a time slot number and a channel identifier (CID) (figure 2, where the header clearly contains a CID or channel identifier)." It would have been

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obvious to one with ordinary skill in the art at the time of invention to include the CID with the device of claim 1 for the same reasons and motivation as in claim 1.

Regarding claim 6, AAPA and Östman disclose the device of claim 1. Östman
5 lacks "a time switch for switching a plurality of time slots; an input buffer unit for storing the plurality of time slot data outputted from the time switch..." However, AAPA further discloses "a time switch for switching a plurality of time slots (figure 1, element 1); an input buffer unit for storing the plurality of time slot data outputted from the time switch (figure 1, element 3)..." AAPA however, lacks "a multiplexer for selectively outputting
10 the time slot data stored in the input to buffer unit." Although AAPA lacks the multiplexer, Östman further discloses "a multiplexer for selectively outputting the time slot data stored in the input to buffer unit (col. 2, lines 35-44 where the act of multiplexing is done by a multiplexer)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the time switch, the buffer, and the
15 multiplexer with the device of claim 1 for the same reasons and motivation as in claim 1.

Regarding claims 7 and 12, AAPA and Östman disclose the device of claim 1. Östman lacks "a packet header storing unit for receiving a CPS packet header by time slot from the controlling unit and storing the same; and a CPS packet buffer for storing
20 the CPS packet header outputted from the packet header storing unit and the time slot data outputted from the multiplexer, to form a CPS packet." However, AAPA discloses "a packet header storing unit for receiving a CPS packet header by time slot from the

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controlling unit and storing the same (figure 1, element 8; specification, page 3, lines 9-13); and a CPS packet buffer for storing the CPS packet header outputted from the packet header storing unit and the time slot data outputted from the multiplexer, to form a CPS packet (figure 1, element 6; specification, page 3, lines 14-16).” It would have
5 been obvious to one with ordinary skill in the art at the time of invention to include the packet header storing unit and the CPS packet buffer with the device of claim 1 for the same reasons and motivation as in claim 1.

Regarding claim 8, AAPA and Östman disclose the device of claim 1. Östman
10 lacks “the CAM allocates the same ATM buffer numbers for the different time slots and CIDs.” However, AAPA further discloses “the CAM allocates the same ATM buffer numbers for the different time slots and CIDs (specification, page 2, lines 22-25 and page 3, lines 1-4).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the CAM allocating buffers with the device of claim 1 for the
15 same reasons and motivation as in claim 1.

Regarding claim 9, AAPA and Östman disclose the device of claim 1. Östman lacks “an ATM buffer unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the
20 CAM; an ATM header generating unit for storing an ATM header; and a transmitting buffer for combining the outputs of the ATM buffer unit and 5 of the ATM header generating unit, to form an ATM cell.” However, AAPA further discloses “an ATM buffer

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unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the CAM (figure 1, element 6; specification, page 3, lines 14-16); an ATM header generating unit for storing an ATM header (figure 1, element 8; specification, page 3, lines 9-13); and a

5 transmitting buffer for combining the outputs of the ATM buffer unit and 5 of the ATM header generating unit, to form an ATM cell (figure 1, element 9).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the ATM buffer, the ATM header generating unit, and transmitting buffer with the device of claim 1 for the same reasons and motivation as in claim 1.

10

Regarding claim 16, AAPA discloses “an ATM cell transmitting device of a switching system comprising:

an ATM cell receiving unit for extracting a...packet from a received ATM cell and storing it according to an ATM buffer number (figure 1, elements 1 and 2);

15

a packet processing unit for converting header information of the extracted...packet and the ATM buffer number outputted from the ATM cell receiving unit into a time slot number and storing a payload of the...packet according to the converted time slot number (figure 1, element 7);

a time slot output unit for demultiplexing the payload of the CPS packet outputted
20 from the packet processing unit to a plurality of time slots and outputting the same (figure 1, elements 1 and 2; specification, page 1, lines 15-17).”

AAPA lacks the packet is a "CPS" packet and "...a time slot output unit for demultiplexing the payload of the CPS packet outputted from the packet processing unit to a plurality of time slots and outputting the same."

However, Östman discloses the "CPS" packet (figure 2 and figure 3 where figure 3 shows CPS packets being assembled into an ATM packet).

It would have been obvious to one with ordinary skill in the art at the time of invention to include the CPS packet with the rest of the ATM device for the purpose of multiplexing a plurality of users into one ATM channel (Östman, col. 2, lines 35-44). The motivation being that by multiplexing a plurality of users the overall throughput of the network is increased.

Regarding claim 17, AAPA and Östman disclose the device of claim 16. AAPA lacks "the header information of the CPS packet refers to a time slot number and a channel identifier (CID)." However, Östman further discloses "the header information of the CPS packet refers to a time slot number and a channel identifier (CID) (figure 2, where the header clearly contains a CID or channel identifier)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the CID with the device of claim 16 for the same reasons and motivation as in claim 16.

Regarding claim 18, AAPA and Östman disclose the device of claim 16. Östman lacks "the ATM buffer number is determined by the VPI/CI included in the header of the ATM cell." However, AAPA further discloses "the ATM buffer number is determined

by the VPI/VCi included in the header of the ATM cell (figure 1, the path between elements 7 and 8 shows the slot number and VPI/VCi; specification, page 1, lines 22-25 where the time slot number corresponds to the ATM buffer number).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the

5 ATM buffer number being determined by the VPI/VCi with the device of claim 16 for the same reasons and motivation as in claim 16.

Regarding claim 19, AAPA and Östman disclose the device of claim 16. Östman lacks “a receiving buffer for storing the ATM cell received through the ATM network; a

10 cell segmenting unit for reading the ATM cell from the receiving buffer, extracting a CPS packet and outputting VPI/VCi information of the ATM cell header; a first CAM for outputting an ATM buffer number corresponding to the output VPI/VCi of the cell segmenting unit; and an ATM buffer unit for storing the CPS packet outputted from the cell segmenting unit according to the ATM buffer number outputted from the first CAM.”

15 However, AAPA further discloses “a receiving buffer for storing the ATM cell received through the ATM network (figure 1, element 9; specification, page 2, lines 4-7); a cell segmenting unit for reading the ATM cell from the receiving buffer, extracting a CPS packet and outputting VPI/VCi information of the ATM cell header (figure 1, element 2; specification, page 1, lines 14-17); a first CAM for outputting an ATM buffer

20 number corresponding to the output VPI/VCi of the cell segmenting unit (figure 1, element 8; specification, page 1, lines 22-25); and an ATM buffer unit for storing the CPS packet outputted from the cell segmenting unit according to the ATM buffer

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number outputted from the first CAM (figure 1, element 6; specification, page 2, lines 4-5)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the receiving buffer, the cell segmenter, the CAM, and another ATM
5 buffer with the device of claim 16 for the same reasons and motivation as in claim 16.

Regarding claim 20, AAPA and Östman disclose the device of claim 19. Östman lacks "the ATM buffer unit having a small capacity of N number of ATM buffers, for outputting an ATM buffer number and the channel identifier of the CPS packet header to
10 the packet processing unit as the CPS packet is wholly completed." However, AAPA further discloses "the ATM buffer unit having a small capacity of N number of ATM buffers, for outputting an ATM buffer number and the channel identifier of the CPS packet header to the packet processing unit as the CPS packet is wholly completed (figure 1, elements 7 and 8; specification, page 2, lines 24-25 and page 3, line 1; it
15 should also be noted the size of the buffer is of a capacity N where N is the size of the buffer)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the buffer with the device of claim 19 for the same reasons and motivation as in claim 19.

20 Regarding claim 21, as it is understood at this time, AAPA and Östman disclose the device of claim 16. Östman lacks "a second CAM for outputting a time slot number corresponding to the ATM buffer number inputted from the ATM receiving unit; and a

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CPS packet buffer unit for storing the CPS packet payload outputted from the ATM receiving unit according to the time slot number outputted from the second CAM."

However, AAPA further discloses "a second CAM for outputting a time slot number corresponding to the ATM buffer number inputted from the ATM receiving unit (figure 1,

5 element 8; specification, page 2, lines 22-25 and page 3, lines 1-4); and a CPS packet

buffer unit for storing the CPS packet payload outputted from the ATM receiving unit according to the time slot number outputted from the second CAM (figure 1, element 6; specification, page 3, lines 14-16)." It would have been obvious to one with ordinary skill

in the art at the time of invention to include the CAM with the device of claim 16 for the

10 same reasons and motivation as in claim 16.

Regarding claim 22, AAPA and Östman disclose the device of claim 16. Östman lacks "a demultiplexer for receiving the CPS packet payload from the CPS packet buffer unit and demultiplexing it to a plurality of time slots; an output buffer unit having N

15 number of small capacity of buffers, for storing the time slot data demultiplexed by the demultiplexer; and a time switch for switching the plurality of time slots stored in the output buffer unit."

However, AAPA further discloses "a demultiplexer for receiving the CPS packet payload from the CPS packet buffer unit and demultiplexing it to a plurality of time slots (figure 1, element 2; specification, page 1, lines 14-17 where by

20 segmentation the ATM cell into a plurality of time slots is the functional equivalent of demultiplexing the packet); an output buffer unit having N number of small capacity of buffers, for storing the time slot data demultiplexed by the demultiplexer (figure 1,

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element 6; specification, page 2, lines 4-5); and a time switch for switching the plurality of time slots stored in the output buffer unit (figure 1, element 1)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the demultiplexer, buffer, and the switch with the device of claim 16 for the same reasons
5 and motivation as in claim 16.

Claims 2-4 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Östman et al. as applied to claim 1 above (for claims 2-4 only), and further in view of Stacey et al. (U.S. Patent 6,434,154 B1).

10

Regarding claim 2, AAPA and Östman disclose the device of claim 1. AAPA and Östman lack "a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit." However, Stacey discloses "a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit (figure 7 where the "Upstream TDMA
15 mini-slots" are the same as having a "timer" for each ATM cell, that is to say in a TDMA stream, each cell gets a certain amount of time per cycle, i.e. each cell is timed each cycle)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the timing of each cell with the device of claim 1 for the purpose of transmitting a plurality of data from different users. The motivation being to reduce the
20 overall packet transmission delay (Stacey, col. 3, lines 38-42).

Regarding claim 3, AAPA, Östman, and Stacey disclose the device of claim 2.

AAPA and Östman lack "the ATM cell transmitting unit receives a CPS packet data and an ATM header for a predetermined time as set in the timer and outputs an ATM cell."

However, Stacey further discloses "the ATM cell transmitting unit receives a CPS

5 packet data and an ATM header for a predetermined time as set in the timer and
outputs an ATM cell (figure 7 where the "Upstream TDMA mini-slots" are the same as
having a "timer" for each ATM cell, that is to say in a TDMA stream, each cell gets a
certain amount of time per cycle during the transmission and receiving of data, i.e. each
cell is timed each cycle)." It would have been obvious to one with ordinary skill in the art
10 at the time of invention to include the timing with the device of claim 2 for the same
reasons and motivation as in claim 2.

Regarding claim 4, AAPA, Östman, and Stacey disclose the device of claim 3.

AAPA and Stacey lack "the ATM cell transmitting unit sets CPS packet data which is not
15 received yet as '0' and completes an ATM cell, in case that CPS packet data is not
wholly received for a predetermined time as set in the timer." However, Östman

discloses "the ATM cell transmitting unit sets CPS packet data which is not received yet
as '0' and completes an ATM cell, in case that CPS packet data is not wholly received
for a predetermined time as set in the timer (figure 3, element 28 where padding

20 achieves the same goal as inserting '0s' into the ATM cell, i.e. if the CPS packet is not
big enough to fill the ATM cell, the ATM cell must have padding or in applicant's case
'0s' used to fill the rest of the cell)." It would have been obvious to one with ordinary skill

in the art at the time of invention to include the '0s' with the device of claim 3 for the same reasons and motivation as in claim 3.

Regarding claim 10, AAPA discloses "an ATM cell transmitting device

5 comprising:

a time slot input unit for switching a plurality of time slots (figure 1, element 1);

a packet processing unit for receiving the switched time slot data and forming a...packet (figure 1, element 2; specification, page 1, lines 15-17);

10 a CAM for outputting ATM buffer numbers for the time slot and [a] CID inputted from the packet processing unit (figure 1, element 8 where VPI/VCI are header information);

an ATM transmitting unit for storing the data of the...packet outputted from the packet processing unit according to the ATM buffer number outputted is from the CAM, to form an ATM cell (figure 1, element 9);

15 a controlling unit for performing a general controlling operation (figure 1, element 5)."

AAPA lacks the packets are "CPS" packets and "a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit..."

20 However, Östman discloses the "CPS" packets (figure 2 and figure 3 where figure 3 shows CPS packets being assembled into an ATM packet) and Stacey discloses "a timer for setting an ATM cell transmitting time of the ATM cell transmitting unit (figure 7 where the "Upstream TDMA mini-slots" are the same as having a "timer"

for each ATM cell, that is to say in a TDMA stream, each cell gets a certain amount of time per cycle, i.e. each cell is timed each cycle)..."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the CPS packets and the timer with the rest of the device for the purpose of multiplexing a plurality of users into one ATM channel (Östman, col. 2, lines 35-44). The motivation being that by multiplexing a plurality of users using a timer, the overall packet transmission delay is reduced (Stacey, col. 3, lines 38-42).

Regarding claim 11, AAPA, Östman, and Stacey disclose the device of claim 10. Östman and Stacey lack "a time switch for switching a plurality of time slots; an input buffer unit for storing the plurality of time slot data outputted from the time switch..." However, AAPA further discloses "a time switch for switching a plurality of time slots (figure 1, element 1); an input buffer unit for storing the plurality of time slot data outputted from the time switch (figure 1, element 3)..." AAPA however, lacks "a multiplexer for selectively outputting the time slot data stored in the input to buffer unit." Although AAPA lacks the multiplexer, Östman further discloses "a multiplexer for selectively outputting the time slot data stored in the input to buffer unit (col. 2, lines 35-44 where the act of multiplexing is done by a multiplexer)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the time switch, the buffer, and the multiplexer with the device of claim 10 for the same reasons and motivation as in claim 10.

Regarding claim 13, AAPA, Östman, and Stacey disclose the device of claim 10.

Östman and Stacey lack “the CAM allocates the same ATM buffer numbers for the different time slots and CIDs.” However, AAPA further discloses “the CAM allocates the same ATM buffer numbers for the different time slots and CIDs (specification, page 2,

5 lines 22-25 and page 3, lines 1-4).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the CAM allocating buffers with the device of claim 1 for the same reasons and motivation as in claim 10.

Regarding claim 14, AAPA, Östman, and Stacey disclose the device of claim 10.

10 AAPA and Stacey lack “the ATM cell transmitting unit sets CPS packet data which is not received yet as '0' and completes an ATM cell, in case that CPS packet data is not wholly received for a predetermined time as set in the timer.” However, Östman discloses “the ATM cell transmitting unit sets CPS packet data which is not received yet as '0' and completes an ATM cell, in case that CPS packet data is not wholly received
15 for a predetermined time as set in the timer (figure 3, element 28 where padding achieves the same goal as inserting '0s' into the ATM cell, i.e. if the CPS packet is not big enough to fill the ATM cell, the ATM cell must having padding or in applicant's case '0s' used to fill the rest of the cell).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the '0s' with the device of claim 10 for the
20 same reasons and motivation as in claim 10.

Regarding claim 15, AAPA, Östman, and Stacey disclose the device of claim 10. Östman and Stacey lack "an ATM buffer unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the CAM; an ATM header generating unit for storing an ATM header; and a
5 transmitting buffer for combining the outputs of the ATM buffer unit and 5 of the ATM header generating unit, to form an ATM cell." However, AAPA further discloses "an ATM buffer unit for storing the CPS packet data outputted from the packet processing unit in a plurality of ATM buffers according to the ATM buffer number of the CAM (figure 1, element 6; specification, page 3, lines 14-16); an ATM header generating unit for storing
10 an ATM header (figure 1, element 8; specification, page 3, lines 9-13); and a transmitting buffer for combining the outputs of the ATM buffer unit and 5 of the ATM header generating unit, to form an ATM cell (figure 1, element 9)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the ATM buffer, the ATM header generating unit, and transmitting buffer with the device of claim
15 10 for the same reasons and motivation as in claim 10.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mauger and Rosenberg ("QoS Guarantees for Multimedia...")
20 discuss ATM cells with CPS cells and their use in a TDMA system. Dempo (U.S. Patent 6,594,267 B1) shows the AAL2 packet processing, including CPS packets, table lookup, and multiplexing. Song (U.S. Patent 6,621,821 B1) discloses AAL2 processing with

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table lookup and multiplexing. Takashima et al. (U.S. Patent 5,509,007) shows a plurality of channels multiplexed into one ATM cell and dummy padding.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joshua Kading
Examiner
Art Unit 2661

JK
March 5, 2004



KENNETH VANDERPUYE
PRIMARY EXAMINER